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Research-in-Progress

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Abstract

Much of the current crowdfunding literature focuses on revealing determinants of one-time crowdfunding performance. However, the impacts of existing platform cues on serial crowdfunding performance remain largely unexplored. Drawing heuristic-systematic model, this study examines how performance-based heuristics cues and opinion-based systematic cues exert differential impacts on subsequent crowdfunding performance. This paper will fill the research gap in the crowdfunding literature by examining how backers are processing performance-related and opinion-related information when making decisions in serial crowdfunding context.

Keywords: Serial crowdfunding, serial entrepreneur, heuristic cue, systematic cue

Introduction

Crowdfunding has emerged as a new mode of financing for entrepreneurial ventures (Mollick 2014). The number of crowdfunding platforms has increased rapidly, more than 1,000 platforms exist worldwide (Massolution, 2015). Online crowdfunding becomes new attractive financing mode for entrepreneurs. Extant crowdfunding literature has focused on factors influencing campaign success for entrepreneurial ventures without considering entrepreneurs founding type. As entrepreneurs continue to utilize crowdfunding more than one time, it becomes essential to understand how entrepreneurs' past founding experience affect their campaign strategies in their subsequent project.

Recent years have witnessed that serial crowdfunding become common. Serial crowdfunding draws much attention of researchers from the domains of information systems and entrepreneurship community (Butticè et al. 2017; Khine 2015; Skirnevskiy et al. 2017; Yang and Hahn 2015). Serial entrepreneurs in crowdfunding can be defined as project creators who completed their first campaign and subsequently launch the second. Entrepreneurship literature suggested that serial entrepreneurs differ from novice entrepreneurs (Westhead et al. 2004). They have different motivations to initiate new venture. For instance, a recent study suggested that raising funds over the set goal in the initial crowdfunding campaign motivate entrepreneurs to launch new entrepreneurial ventures (Davidson and Poor 2016). And a small body of literature has been devoted to understanding the potential drivers of crowdfunding success launched by serial entrepreneurs as compared to those by novice entrepreneurs (Skirnevskiy et al. 2017; Yang and Hahn 2015).

In general, such studies may shed light on static aspects of success factors in crowdfunding marketplace. Entrepreneurs' learning and experience were known to be a critical factor influencing success or failure of ventures, and such founding experience is not static but dynamic in nature (Yang and Hahn 2015). Entrepreneurs would accumulate experience if they develop their venture idea,

share it, and communicate it with various investors on crowdfunding. Such experience may bring a variety of assets, which may include founding knowledge and campaign strategies as well as a network of connections that can be utilized in subsequent projects.

While these studies contribute significantly to the crowdfunding literature, a review of the literature suggests several research gaps of practical significances. First, the extant literature on serial crowdfunding has only focused on the effects of social capital on subsequent campaigns performance (Butticè et al. 2017; Yang and Hahn 2015). Second, although recent studies have investigated entrepreneurs characteristics such founding experience that influences funding outcomes in subsequent campaigns (Davidson and Poor 2016; Skirnevskiy et al. 2017; Yang and Hahn 2015), yet these studies have not adequately examined how the campaign performance and quality of delivered product exert differential effects on funding performance on subsequent campaigns. Thus, this study seeks to build a theory regarding how persuasion processes, through entrepreneur-investor engagements and new product launch strategies, influence investor's decision behavior, eventually affecting funding outcomes.

Drawing on the heuristic-systematic model, this paper seeks to fill the gap by examining the effects of performance-based heuristics cues and opinion-based systematic cues on subsequent or serial crowdfunding campaigns. Further, we argue that backers are likely to rely on performance success of previous campaigns as a positive cue when making their funding decision for a serial crowdfunding campaign.

Background and Related Literature

Serial Crowdfunding Performance

A small research stream in online crowdfunding has devoted to examining the potential motivational factors driving an entrepreneur to launch subsequent projects and to investigate success factors for serial crowdfunding. The crowdfunding platform is like a community for the creation of social contacts, which making backers instantly aware of the new funding campaign launched by the prior followed campaign initiator (Colombo et al. 2015). This awareness increases the probability that backers who funded the initial campaign will support the subsequent campaign (Butticè et al. 2017; Vismara 2016).

The relationship between serial crowdfunding success and post-campaign related indicators (e.g., social capital, number of backers) are discussed by the serial crowdfunding researchers in recent years. For instance, Butticè et al. (2017) suggested these prior followed backers as internal social capital and suggested that internal social capital developed within the platform, which is not available to first-time or novice entrepreneurs, makes serial entrepreneur's campaigns more successful than those launched by novice entrepreneur. Similarly, Skirnevskiy et al. (2017) indicated that the internal social capital of creators could develop through campaign track record; they also studied how internal social capital can spill over to external online communities. Davidson and Poor (2016) analyzed the Kickstarter platform and found the fact that a higher number of backers in post-campaign increases the odds of the second project. Moreover, the funds raised above a project goal also increased the odds of the second project. Previous successful campaign number is another essential indicator for investigating the success of the following campaign. Usually, the serial entrepreneurs will achieve a higher rate of success with a higher the number of previously successful campaigns they launched (Courtney et al. 2017). In addition, the raised fund amount (Skirnevskiy et al. 2017), direct/indirect experience (Yang et al. 2015), social media and goods types (Hong et al. 2015) of post-campaign also show the positive impacts on new crowdfunding project success.

Heuristic-Systematic Model

Heuristic-systematic model (HSM) indicated that individuals process information using a combination of heuristics and systematic cues (Chaiken 1980). From the information processing perspective, HSM differentiates heuristics information processing from systematics processing. This model was

developed for describing how people use the information to make a judgment about uncertainty (Griffin et al. 1999) and to gain precise attitudes in keeping with relevant facts (Griffin et al. 2002).

From the information processing perspective, heuristic processing as "a limited mode of information processing that requires less cognitive effort and fewer cognitive resources" than systematic processing (Flachowsky 2011). Individuals make judgments or decisions through external cues such as source credibility and the use of statistical data. In contrast, systematic processing involves a much more comprehensive effort to analyze and understand information. However, whereas systematic processing involves the careful and extensive evaluation of information, heuristic processing entails the use of simple decision rules (e.g., the more arguments, the better) to form a judgment.

The systematic processing is cognitive processing of judgment-relevant information content to access the reliability or validity of message and source. It occurs when individuals make a judgment by carefully examining, comparing, and relating ques. In this process, individuals may put their efforts in a search for high-quality information and scrutiny of arguments that used in decision making. The accessibility and processing of this high-quality information would potentially be more useful for higher involvement decisions. In contrast, the heuristic processing occurs when individuals use "simple decision rules" to help them access the validity of ques (Chaiken and Maheswaran 1994). This approach requires less effort and fewer resources (Trumbo 1999). It leverages the indicators embedded within or surrounding the context, such as messages that are endorsed by others, agreement with expert opinion and some other cues.

HSM can be applied to a broader range of decision-making applications or judgmental domains (Trumbo 1999). For instance, Zhang et al. (2014) adopt HSM to examine the influence of online reviews on consumers' decision-making. (Luo et al. 2013) leverage HSM to evaluate and predict the risk judgment. Chung et al. (2017) investigated the influences of heuristic and systematic cues of online reviews on potential hotel customers' perception. Lim (2013) studied the HSM-based heuristic processing in assessing the credibility of Wikipedia through a quasi-experiment and a web survey. Drawing on the heuristic-systematic model, Davis et al. (2013) investigated end-users' effortful information processing when encountering IS exceptions. All these prior efforts have developed HSM and help to understand how individuals use the information to arrive at accuracy-motivated judgments in persuasive situations (Trumbo 1999).

From the persuasion perspective, HSM also posits that heuristics persuasion processing mainly differs from systematic persuasion. Applied to persuasion, heuristic processing implies that individuals form their decisions or update their attitude by invoking heuristics such as "experts can be trusted" and "majority opinion is trustworthy." In contrast, systematic processing implies that people make judgments by actively attending to persuasive arguments, required more effort to investigate a diverse set of information carefully.

In crowdfunding context, to persuade backers to finance a campaign, entrepreneurs utilize pitch narrative (Mitra and Gilbert 2014) such project description (Kuppuswamy and Bayus 2013) and video pitch (Mollick 2014), project update (Xu et al. 2014), internal social capital (Colombo et al. 2015), external social capital (Zheng et al. 2014), selection of fixed funding option (Cumming et al. 2014), third-party endorsement from traditional and online news media (Calic and Mosakowski 2016), and geographical location (Agrawal et al. 2010). Also, prospective backers need to utilize such information to evaluate or make a judgment of the campaign quality before their final funding decisions.

HSM, generally viewed as a dual-process model, offer the dual routes which will be helpful to examine the elements of heuristic and systematic cues derived from both performance-based quality metrics and opinion-based engagements. Except for campaign quality related content ques, many non-content related cues (e.g., number of engagement) exist on online crowdfunding platforms. Besides, project backers need to identify whether systematic heuristic cues are valid or not in investment decision-making. More importantly, the heuristic-systematic model highlights the co-occurrence of systematic and heuristic persuasion processing. These co-effects of these two processes could jointly impact potential backers' investment decision.

Research Model and Hypothesis Development

Research Model

Figure 1 depicts the research model of this study. We denote track record and on-time delivery as performance-based heuristics cues and engagement and product reviews as opinion-based systematic cues that represent backers' perceptions derived from the systematic processing of both campaigns delivered products. The entrepreneur-investor engagement and quality dispersion posted by exiting backers are systematic factors that represent two types of related perceptions which developed from the systematic processing of post-campaign activities. This study specifically examines the effectiveness of heuristic and systematic cues on subsequent campaign performance.

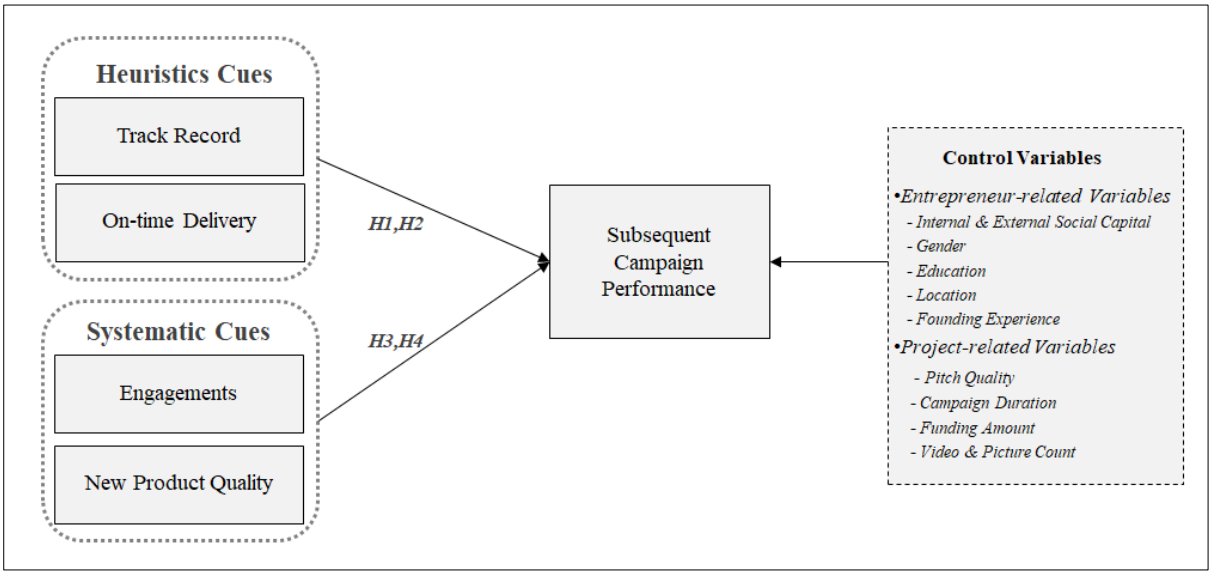

Figure 1. Research Model

Effects of Performance-based Heuristic Cues

A central problem in starting a new venture is a low level of legitimacy for entrepreneurs, and there has been a long-standing concern that entrepreneurs face difficulty in proving their venture quality. In crowdfunding context, entrepreneurs also face this challenge. Due to pervasive information asymmetry, it is hard for potential backers to evaluate project quality accurately. However, different from novice entrepreneurs, serial entrepreneurs have founding experiences and the track records in crowdfunding platform could be a credible signal for backers to evaluate the quality of subsequent projects.

It is widely accepted that venture quality is multifaceted. Following Baum et al. (2000) and Davidson and Poor (2016), we argue that crowdfunding project quality is reflected in funding performance. Funding performance of entrepreneurs' past crowdfunding campaigns is an indicator of the quality of the proposed venture. Past crowdfunding success is more likely to motivate entrepreneur to launch the second campaign and the campaign with higher number of backers significantly increase the likelihood of proposing the second venture successfully (Davidson and Poor 2016). Butticè et al. (2017) claimed that initial successful campaigns could be an alternative means of developing a large social capital within the crowdfunding platform. Eventually, serial entrepreneurs with such "internal social capital" could mobilize loyal backers to support their subsequent campaign. Thus, we propose:

H1. The track record of an entrepreneur is positively associated with the performance of the subsequent campaign.

Prior studies have shown that market performance of the past project has a significant influence on the subsequent project. The primary role of the past success in crowdfunding is to reduce information asymmetry. We argue that on-time delivery measured by Mollick (2014) serves as an important

performance-based heuristic cue in online campaign activities. Most online crowdfunding projects have delivery delay issue (Mollick et al. 2014), and the delivery delays of post-campaign activities as excused behaviors may increase potential backers' perceived uncertainty of subsequent venture quality. Thus:

H2. The on-time delivery is positively associated with the performance of the subsequent campaign.

Effects of Opinion-based Systematic Cues

Successful post-crowdfunding campaigns usually allow entrepreneurs to aggregate a group of backers. When entrepreneurs deliver a high-quality product, they will develop more frequent interactions and emotional connections by project discussion forums, web messengers, and backer groupings (Butticè et al. 2017; Gerber et al. 2012). When the entrepreneurs start a new campaign, founders' engagement could be seen as the internal sources of the entrepreneurs (Skirnevskiy et al. 2017). These internal sources will have a positive and measurable impact on the performance of subsequent campaign, thus we hypothesize:

H3. The entrepreneur-investor engagement is positively associated with the performance of the subsequent campaign.

Online product reviews have become an increasingly important cue for consumers (Goes et al. 2014) and significantly affect consumer choices and product sales (Chintagunta et al. 2010; Dellarocas 2003). The review of product quality increases potential consumer awareness of the product and has long been recognized as a reliable information cue about quality of experience goods (Li et al. 2008).

In crowdfunding context, if a potential backer wants to join a campaign, he or she may care more about the online reviews of related activities (Bi et al. 2017). Product quality that generated from the campaign product reviews reveals the consumer consensus effectively. However, it is hard for backers to evaluate on-going campaign quality in early days as lacking of product-related user experience reviews. Thus, the consensus and feedbacks that generated from post product reviews, serviced as systematic cues, will affect the quality perception of reviewer, and thus impact their investment decisions.

H4. New product quality is positively associated with the performance of the subsequent campaign.

Research Method

The data for this study will be collected from Indiegogo.com. Established in 2008, Indiegogo is one of the largest international crowdfunding platforms. It is a reward-based crowdfunding platform where entrepreneurs publish their innovative ideas and crowds support those projects. Detailed data on funding transaction for both the first and second crowdfunding initiated by serial entrepreneurs will be assembled for data analysis. The variables included in the research model will be operationalized as follows. Following Colombo et al. (2015), the dependent variable is operationalized as the number of backers pledging at the end of campaign duration. The track record is operationalized as the number of previously successfully campaigned crowdfunding projects. On-time delivery is measured as a dummy variable that equals to one if an entrepreneur delivers a product on the estimated delivery date and zero otherwise. Entrepreneur-funder engagement is measured by the frequency of interaction between entrepreneur and backers. Lastly, consumer feedback to product features and functionality, in terms of the degree of conformance to predetermined specification, become a general source so we operationalize product quality as the valence of online consumer feedback.

Expected Contribution

This paper is expected to generate the following contributions. First, to our knowledge, there is scarce empirical research that builds upon the heuristic-systematic model to conceptualize the notion of digital innovation capability. Given that prior studies have mainly focused on investigating the relationship between social capital and serial campaign performance, there is a pressing need to examine how backers are processing different types of information such as campaign-related

performance and opinion-related information when making decisions for the serial crowdfunding. In this regard, this study will also fill the research gap in the serial crowdfunding literature.

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